IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method for producing an optical component of quartz glass, said method comprising:

elongating a coaxial arrangement of a core rod and a hollow cylinder of a predetermined length**, wherein** ~~**in that**~~ the coaxial arrangement is supplied in vertical orientation to a heating zone and is softened therein zonewise, starting with a lower end thereof, and the component is drawn off downwards from a softened region, the hollow cylinder having an inner bore **therein, and** ~~**which**~~ in a region of **the** ~~**a**~~ lower end **being** ~~**thereof is**~~ provided with a constriction **in the inner bore** on which the core rod is supported, wherein ~~**the constriction of the inner bore is produced in a first upper hollow cylinder wherein**~~

a) the first upper hollow cylinder is fused at ~~**a front side**~~ **an end thereof** with a second lower hollow cylinder so as to form an axial cylinder composite,

b) **the** ~~**a**~~ core rod is introduced into the lower hollow cylinder and the axial cylinder composite is supplied to the heating zone, starting with its lower end, and is softened therein zonewise and elongated so as to form the optical component,

c) a drawing bulb being formed **as said axial cylinder composite is softened and**

elongated, said drawing bulb progressing in the cylinder composite to the first upper hollow cylinder, **wherein,** within said **drawing** bulb, the inner bore **is** ~~**being**~~ collapsed at least in part, so as to produce the constriction of the inner bore,

d) the first **upper** hollow cylinder is separated at a separation plane in an area of the constriction **therein** from the withdrawn optical component **so that the separated first upper hollow cylinder has the constriction at an end thereof,** and

e) the first **upper** hollow cylinder is subsequently **combined with a second core rod supported on the constriction in a second coaxial arrangement, and the second coaxial arrangement is** elongated so as to produce ~~**an**~~ **a second** optical component ~~**together with a core rod in a coaxial arrangement**~~.

2. (currently amended) The method according to claim 1, wherein the first **upper** hollow cylinder is subsequently used as **a** ~~**the**~~ second **lower** hollow cylinder **in a second axial cylinder composite**.

3. (previously presented) The method according to claim 1, wherein the upper hollow cylinder is used in the elongation process for holding the lower hollow cylinder.

4. (previously presented) The method according to claim 1 wherein the constriction in the area of the separation plane has an axially continuous opening.

5. (previously presented) The method according to claim 1 wherein the elongation process comprises a drawing phase and a drawing end phase, and wherein during the drawing phase a negative pressure is produced in the inner bore relative to an externally applied pressure.

6. (previously presented) The method according to claim 5, wherein the pressure in the inner bore is increased in the drawing end phase.

7. (previously presented) The method according to claim 6, wherein the pressure in the inner bore is increased in the drawing end phase to a value in the range of an ambient pressure +/-50 mbar.

8. (previously presented) The method according to claim 1, wherein a plunger which has a smaller outer diameter than the core rod is used in the inner bore above the core rod.

9. (previously presented) The method according to claim 1 wherein the upper end of the core rod extends into the inner bore of the upper hollow cylinder.

10. (previously presented) The method according to claim 9, wherein the upper end of the core rod extends up and into a region of half the length of the upper hollow cylinder.

11. (previously presented) The method according to claim 1 wherein at least one of the upper hollow cylinder and the lower hollow cylinder has at least one of a beveled inner diameter and a beveled outer diameter.

12. (previously presented) The method according to claim 1 wherein the upper hollow cylinder and lower hollow cylinder have inner diameters that differ by not more than +/-2 mm from each other, and the upper hollow cylinder and lower hollow cylinder have outer diameters that differ by not more than +/-3 mm from each other.

13. (previously presented) The method according to claim 1 wherein the inner bore of the first upper hollow cylinder is mechanically machined to a final dimension.

14. (previously presented) The method according to claim 2, wherein the constriction in an area of the separation plane has an axially continuous opening.

15. (previously presented) The method according to claim 3, wherein the constriction in an area of the separation plane has an axially continuous opening.

16. (previously presented) The method according to claim 2, wherein the upper end of the core rod extends into the inner bore of the upper hollow cylinder.

17. (previously presented) The method according to claim 3, wherein the upper end of the core rod extends into the inner bore of the upper hollow cylinder.

18. (previously presented) The method according to claim 4, wherein the upper end of the core rod extends into the inner bore of the upper hollow cylinder.

19. (previously presented) The method according to claim 2, wherein the upper hollow cylinder and/or the lower hollow cylinder has an inner diameter and/or an outer diameter that is beveled.

20. (previously presented) The method according to claim 3, wherein the upper hollow cylinder and/or the lower hollow cylinder has an inner diameter and/or an outer diameter that is beveled.

21. (previously presented) The method according to claim 4, wherein the upper hollow cylinder and/or the lower hollow cylinder has an inner diameter and/or an outer diameter that is beveled.